ABSTRACT OF THE DISCLOSURE

An emission layer (5) for a light source device is formed to have a multi-layer structure, doped with an acceptor and a donor impurity. The multi-layer structure may include a quantum well (QW) structure or a multi quantum well (MQW) structure (50). With such a structure, a peak wavelength of the light source can be controlled, because the distances between atoms of the acceptor and the donor impurities are widened. Several arrangements can be made by, e.g., altering the thickness of each composite layer of the multi-layer structure, altering their composition ratio, forming undoped layer 5 between the impurity doped layers, and so forth. Further, luminous intensity of ultra violet color can be improved, because doping the donor impurity and the acceptor impurity realizes a donor-acceptor emission mechanism and abundant carriers. Several arrangements can be made by, e.g., optimizing the materials of the composite layers, optimizing their composition ratios, optimizing their lattice constants, and so forth to further enhance the luminous intensity of the light source.